

Capital Cities/ABC, Inc. 77 West 66 Street New York NY 10023 (212) 456 6686

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abc

Linda Gerber
Legal Assistant
Law & Regulatory

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Via Hand Delivery

Ms. Donna R. Searcy
Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Dear Ms. Searcy:

On behalf on WPVI-TV, I enclose an original and four copies of an informal objection to the application of Beacon Broadcasting Corporation to construct a new noncommercial FM broadcast station on Channel 207A (89.3 MHz) in Allentown, Pennsylvania.

Please contact the undersigned with questions regarding this filing.

Sincerely,

Linda Gerber
Linda Gerber

LMG
Enclosure

cc: Robert O. Niles

93-37

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

RECEIVED

MAY 28 1992

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Application of)
BEACON BROADCASTING CORPORATION) No. BPED-900905ML
For a Noncommercial)
Educational Broadcast Station)

To: Chief, Mass Media Bureau

INFORMAL OBJECTION

Pursuant to Section 73.3587 of the Commission's rules, Capital Cities/ABC, Inc., on behalf of WPVI-TV (Philadelphia Channel 6), hereby objects to the application of Beacon Broadcasting Corporation ("Beacon") to construct a new noncommercial FM broadcast station on Channel 207A (89.3 MHz) in Allentown, Pennsylvania.

Beacon's application, if granted, would result in interference to WPVI vastly exceeding that permitted under Section 73.525 of the Commission's rules.

Argument

Beacon's assertion that its proposed station would conform to Section 73.525 of the Commission's rules is based on incorrect and unsupported assumptions about the topography of the area in which its proposed signal would interfere with WPVI's signal. Beacon's application should be dismissed because Beacon has not followed the

procedures specified in Section 73.525(e)(1)(vi) for making a supplemental showing based on widely varying terrain and, in fact, Beacon's proposed station would cause interference to over 200,000 persons -- well in excess of the limit of 3,000 persons (or 4,000 if filters are installed) set forth in Section 73.525(c).¹

A. Beacon Has Not Followed the Procedures
For Making A Supplemental Showing

Beacon maintains that its station would cause interference to 171 persons who receive WPVI-TV's signal.² Beacon states that it arrived at this figure by (1) computing the WPVI interference area, (2) subtracting the area "shadowed by . . . irregular terrain," (which Beacon claims is nearly all of the interference area), and (3) multiplying the number of houses in the unshadowed area by the number of persons per household in Lehigh County.³

Section 73.525(e)(1)(vi) requires that an applicant seeking to make a supplemental showing "where the terrain in one or more directions departs widely from the surrounding terrain average" must "describe the procedure used and should include sample

¹ See Engineering Report of Moffet, Larson & Johnson, Inc., May 18, 1992, attached hereto as Exhibit 1, at 3 and Table 2 (predicted interference to 273,718 persons, using 1990 census data). See also Petition to Deny filed by Lehigh Valley Community Broadcasters Association, at 2, with accompanying Engineering Statement of Charles W. Loughery at 2 (predicted interference to 207,251 persons, using 1980 census data).

² See Engineering Report of Moffet, Larson & Johnson, Inc., May 18, 1992, attached hereto as Exhibit 1, at 3 and Table 2 (predicted interference to 273,718 persons, using 1990 census data).

³ See Engineering Report of Moffet, Larson & Johnson, Inc., May 18, 1992, attached hereto as Exhibit 1, at 3 and Table 2 (predicted interference to 273,718 persons, using 1990 census data).

calculations." Beacon has failed to conform to these requirements.

To begin with, Beacon has not provided the terrain average nor described in which directions the terrain departs from the surrounding terrain average as the rule requires. Beacon's engineering statement merely asserts that "[a] detailed terrain study was performed" and that "[t]here is irregular terrain (mountains and hills) that exist between Channel 6 and the proposed FM station."⁴ Beacon has not named any mountains or given the

location of any significant hills. To find the area between the

edge and round edge refraction processes, modify the radio signal ray, and deflect it into supposedly shadowed areas, often resulting in quite high levels of available field strength.⁶

B. Beacon's Proposed Station Would Cause Interference to Over 200,000 Persons

As explained in the attached engineering statement, the size of the interference area as calculated by Moffet, Larson & Johnson ~~is similar to that arrived at by Deacon before Deacon's subtraction~~

the block-level centroid retrieval method (the former uses block-groups while the latter uses individual blocks), the methodology conclusively establishes that well in excess of 4,000 persons are in the interference area.⁹

CONCLUSION

Because the total number of persons in the TV6 interference area would vastly exceed 4,000, the amount of interference proposed by Beacon is impermissible under Rule 73.525 and its application should be dismissed.

Respectfully Submitted,

By Marian Lindberg
Capital Cities/ABC, Inc.
77 West 66th Street
New York, New York 10023

Marian Lindberg
Senior General Attorney,
Law & Regulation

May 27, 1992

⁹ As previously noted, the Lehigh Valley Community Broadcasters Association and its engineer have independently determined that in excess of 200,000 people are in the interference area. See Petition to Deny filed by Lehigh Valley Community Broadcasters Association, at 2, and accompanying Engineering Statement of Charles W. Loughery at 2.

CERTIFICATE OF SERVICE

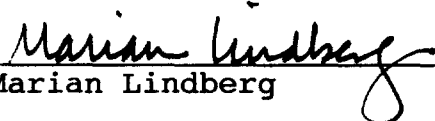
I, Marian Lindberg, hereby certify that on this 27th day of May, 1992, I caused a copy of the foregoing "Informal Objection" to be served by first-class United States mail, postage prepaid to:

Beacon Broadcasting Corporation
401 North 17th Street
Suite 205
Allentown, Pennsylvania 18104

Jeffrey S. Southmayd, Esq.
Southmayd Simpson & Miller
1233 Twentieth Street, N.W.
Second Floor
Washington, D.C. 20036

Charles Jones
President
Lehigh Valley Community Broadcasters
Association, Inc.
P.O. Box 456
Allentown, Pennsylvania 18105

Malcolm G. Stevenson, Esq.
Schwartz, Woods & Miller
The Dupont Circle Building
Suite 300
1350 Connecticut Avenue, N. W.
Washington, D.C. 20036


Marian Lindberg

MOFFET, LARSON & JOHNSON, INC.

5203 LEESBURG PIKE

CONSULTING TELECOMMUNICATIONS ENGINEERS

FALLS CHURCH, VA 22041

ENGINEERING REPORT IN SUPPORT OF AN INFORMAL OBJECTION
REGARDING THE POTENTIAL FOR INTERFERENCE
TO WPVI-TV, CHANNEL 6, PHILADELPHIA, PENNSYLVANIA,
FROM A PROPOSAL BY BEACON BROADCASTING CORPORATION
FOR A NEW FM STATION ON CHANNEL 207A,
AT ALLENTOWN, PENNSYLVANIA (FILE NO. BPED-900905ML)

May 27, 1992

MOFFET, LARSON & JOHNSON, INC.

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CONSULTING TELECOMMUNICATIONS ENGINEERS

FALLS CHURCH, VA 22041

Capital Cities/ABC, Inc. - Station WPVI-TV
Philadelphia, Pennsylvania

ENGINEERING STATEMENT

This Engineering Statement was prepared on behalf of Capital Cities/ABC,

MOFFET, LARSON & JOHNSON, INC.

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Philadelphia, Pennsylvania

$$P = H + V/A$$

Where:

P is the maximum permitted horizontally polarized-only power in kilowatts;

H is the horizontally polarized ERP in kilowatts for mixed polarity;

V is the vertically polarized ERP in kilowatts for mixed polarity; and

A is 40 since the predicted interference area lies outside the limits of a city of 50,000 persons or more.

Using the data provided in Beacon's application, the program computed the equivalent horizontally polarized ERP for the combination of horizontally and vertically polarized radiation:

$$P = 0.150 + 0.143/10 = 0.1643 \text{ kW } (-7.84 \text{ dBk})$$

In calculating the hypothetical interference for the horizontally-polarized radiation, the FCC rules allow a -6 dB ($\frac{1}{4}$) adjustment in the ERP for receiving antenna directivity across specified arcs. This adjustment was taken on the applicable azimuths, resulting in a reduction in interference distance on these radials. The horizontal plane pattern of the horizontally and vertically polarized radiation was also considered, using data supplied by Beacon.

Each pair of lines in Table 1 show the essential parameters used for the calculation of TV6 interference distance along a single radial. Reading from left to right, the numbers display the True azimuth and the distance in kilometers to the *inside* the TV6 interference area (designated by "IN").¹ The second line of the pair shows the first radial point *outside* the TV6 interference area (designated by "OUT").

The remainder of each pair of lines in Table 1 provides data for the TV and FM facilities from which the interference determinations were made. The fourth through the eight columns, respectively, list the bearing from the TV site to the radial study point, the distance in kilometers, the TV6 effective antenna height in feet on the instant bearing, the TV6 effective radiated power in dBk, and the TV6 field strength in dBuV at the study point.

The ninth through the twelfth columns of Table 1 list the FM antenna height above average terrain in feet on the study radial, the "Effective" ERP

¹ Although the "IN" distance is the first increment away from the FM site, the TV6 interference from the Beacon operation begins at the FM transmitter site.

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in dBk on the pertinent radial azimuth, the field strength in dBuV at the radial study point, the allowable undesired-to-desired field ratio as a function of TV6 field strength, and the resulting undesired-to-desired field ratio at the study point.

Where the resulting U/D value exceeds the allowed U/D, for example, 0.0° from the Beacon proposal at a distance of 0.1 km, the program identifies the point as being "IN" the TV6 interference area. The program continues to calculate TV6 interference until it detects a point "OUT" of the interference area, such as 0.0° from the Beacon proposal at a distance 13.2 km.

Comparison of the distances given in Table 1 herein with those given in Table V of Beacon's TV6 interference study shows a similarity in size and shape before Beacon's subtraction for its assumed signal shadowing effect. However, the computerized population study of Table 2 herein shows a total of 273,718 persons will receive TV6 interference.²

Beacon's engineering enumerates a population of only 171 persons within the WPVI-TV interference area, after exclusion of what it claims is WPVI-TV service area "shadowed by irregular terrain". Beacon concludes, without offering any supporting technical data or computations, that most of the area calculated under 73.525(e)(1)(vi) of the rules does not receive signal from WPVI.

Beacon's exclusion of much of the potential WPVI-TV interference area is a misapplication of Section 73.525(e)(1)(vi) of the rules, which provides for supplemental showings of interference. However, this showing applies only in cases where the terrain in the interference area departs widely from the surrounding terrain. The rule part suggests "an intervening mountain" as a possible terrain condition qualifying for supplemental showings. Mountainous terrain does not exist in Beacon's case.

Beacon application does not prove wide variance of terrain, but merely states that the terrain is shadowed. No representation is made that the terrain "departs widely from the surrounding terrain" as is required by the rules, nor is any explanation of procedures provided, and no sample calculations are included.

Beacon erred in claiming that the WPVI-TV signal strength falls below 47 dBu (Grade B) service. It is well known that simple shadowing as depicted in Beacon's application does not absolutely block signal coverage,

² The enumeration of population is based on 1990 U.S. Census Data, Bureau of the Census, using the block-group centroid retrieval method. In view of the tremendous size of the interference area, enumeration by block-group centroid retrieval is believed to be sufficiently accurate to demonstrate the excessive number of persons in the TV6 interference area.

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but that more sophisticated forms of propagation, such as single and double knife edge diffraction and atmospheric refraction processes modify the radio signal ray, and deflect it into supposedly shadowed areas, often resulting in quite high levels of available field strength.

Beacon has a responsibility to demonstrate, either through actual signal strength measurements made in conformance with procedures provided in the rules in 73.314, or by use of an industry-accepted method of signal level prediction in rugged terrain, that the WPVI signal falls below 47 dBu in the area of predicted interference. Failing such a showing, Beacon cannot assume away coverage by WPVI in those areas.

In conclusion, the engineering provided in the Beacon's application fails to demonstrate that a supplemental showing of TV6 interference is allowable. Further, Beacon provides no technical proof of its claim that a majority of the area of potential interference to WPVI-TV should be excluded. Beacon's proposed operation should not be granted as it would result in an area of interference to WPVI-TV comprising a population many times the number allowed by the Commission's Rules.

MOFFET, LARSON & JOHNSON, INC.

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Philadelphia, Pennsylvania

TABLE 1
TV Channel 6 - Non-Commercial FM Interference Calculations

T V C H A N N E L 6 F A C I L I T Y

Station Id : WPVI
Station File : WPVI.TV

Horizontal Pattern

File Name : P:nonDA.HOR
Pattern Id : non-DA pattern
Orientation : 0.0

Maximum ERP : 74.1 kW

Site Elevation : 77 meters AMSL
Antenna Radiation Center : 327 meters AGL
Antenna Radiation Center : 404 meters AMSL

Coordinates : 40 2 38.50 75 14 25.50

N O N - C O M M E R C I A L F M F A C I L I T Y

Station Id : Beacon Bdctg. Corp., Ch. 207A
Station File : ALLENTWN.FM

H Pol Pattern

File Name : P:ALLENTWN.hor
Pattern Id : horz. pol. hor. plane
Orientation : 0.0

V Pol Pattern

File Name : P:ALLENTWN.ver
Pattern Id : vert. pol. hor. plane
Orientation : 0.0

Maximum H Pol ERP : 0.150 kW
Maximum V Pol ERP : 0.143 kW

FM Channel : 207

Site Elevation : 283 meters AMSL
Antenna Radiation Center : 113 meters AGL
Antenna Radiation Center : 396 meters AMSL

Coordinates : 40 33 54.00 75 26 26.00

Using 10 dB allowance for V pol. and 6 dB for horiz. rcvg. ant. directivity.

Direct Bearing from TV Channel 6 to FM Station = 343.7

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Philadelphia, Pennsylvania

Table 1 (Cont'd)

I N T E R F E R E N C E C A L C U L A T I O N S

Interference			----- TV -----					----- FM -----				
At												
Az	Dist		Az	Dist	Haat	ERP	Field	Haat	ERP	Field	U/D	U/D
0.0	0.1	IN	343.8	60.4	1063	18.70	64.7	906	-7.84	94.2	4.0	25.5
0.0	13.4	OUT	346.7	73.2	1063	18.70	59.1	906	-7.84	66.7	7.6	-0.0
10.0	0.1	IN	343.8	60.4	1063	18.70	64.7	902	-7.94	94.1	4.0	25.4
10.0	13.3	OUT	348.4	72.4	1064	18.70	59.4	902	-7.94	66.7	7.3	-0.1
20.0	0.1	IN	343.8	60.4	1063	18.70	64.7	930	-8.21	93.8	4.0	25.2
20.0	13.2	OUT	350.0	71.3	1064	18.70	59.9	930	-8.21	66.8	7.0	-0.1
30.0	0.1	IN	343.8	60.4	1063	18.70	64.7	914	-8.55	93.5	3.9	24.8
30.0	12.7	OUT	351.3	69.6	1063	18.70	60.6	914	-8.55	67.0	6.4	-0.1
40.0	0.1	IN	343.8	60.4	1063	18.70	64.7	908	-8.74	93.3	3.9	24.6
40.0	12.4	OUT	352.5	67.9	1063	18.70	61.4	908	-8.74	67.2	5.9	-0.1
50.0	0.1	IN	343.8	60.3	1063	18.70	64.7	886	-8.74	93.3	3.9	24.6
50.0	12.0	OUT	353.3	66.0	1062	18.70	62.2	886	-8.74	67.5	5.3	-0.0
60.0	0.1	IN	343.8	60.3	1063	18.70	64.7	814	-14.59	87.4	3.9	18.8
60.0	7.8	OUT	350.7	62.6	1063	18.70	63.7	814	-14.59	68.0	4.4	-0.1
70.0	0.1	IN	343.8	60.3	1063	18.70	64.7	856	-14.30	87.7	3.9	19.1
70.0	8.0	OUT	351.2	61.3	1063	18.70	64.3	856	-14.30	68.3	4.2	-0.1
80.0	0.1	IN	343.8	60.3	1063	18.70	64.7	792	-14.01	88.0	3.9	19.3
80.0	7.7	OUT	351.0	59.9	1063	18.70	64.9	792	-14.01	68.6	3.9	-0.1
90.0	0.1	IN	343.8	60.3	1063	18.70	64.7	832	-13.87	88.1	3.9	19.5
90.0	7.8	OUT	351.0	58.6	1063	18.70	65.5	832	-13.87	68.9	3.6	-0.2
100.0	0.1	IN	343.8	60.3	1063	18.70	64.7	862	-13.89	88.1	3.9	19.5
100.0	7.7	OUT	350.6	57.3	1063	18.70	66.1	862	-13.89	69.4	3.3	-0.1
110.0	0.1	IN	343.8	60.2	1063	18.70	64.7	732	-14.18	87.8	3.9	19.2
110.0	6.9	OUT	349.4	56.5	1064	18.70	66.5	732	-14.18	69.5	3.2	-0.1
120.0	0.1	IN	343.8	60.2	1063	18.70	64.7	722	-14.76	87.2	3.9	18.6
120.0	6.5	OUT	348.3	55.8	1064	18.70	66.8	722	-14.76	69.8	3.1	-0.1
130.0	0.1	IN	343.8	60.2	1063	18.70	64.7	748	-15.67	86.3	3.9	17.7
130.0	6.2	OUT	347.3	55.2	1063	18.70	67.0	748	-15.67	69.8	3.0	-0.2

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FALLS CHURCH, VA 22041

Capital Cities/ABC, Inc. - Station WPVI-TV
Philadelphia, Pennsylvania

Table 1 (Cont'd)

I N T E R F E R N C E C A L C U L A T I O N S

Interference			----- TV -----						----- FM -----			
At									Effective		Allowed	
Az	Dist		Az	Dist	Haat	ERP	Field	Haat	ERP	Field	U/D	U/D
140.0	0.1	IN	343.8	60.2	1063	18.70	64.7	772-17.04	85.0	3.9	16.3	
140.0	5.7	OUT	346.1	55.1	1063	18.70	67.1	772-17.04	69.9	3.0	-0.1	
140.0	7.9	IN	347.1	53.2	1063	18.70	68.0	772-11.04	71.0	2.6	0.3	
140.0	8.1	OUT	347.2	53.0	1063	18.70	68.1	772-11.04	70.6	2.6	-0.1	
150.0	0.1	IN	343.8	60.2	1063	18.70	64.7	744-18.46	83.5	3.9	14.9	
150.0	5.1	OUT	345.0	55.4	1063	18.70	67.0	744-18.46	69.8	3.0	-0.1	
160.0	0.1	IN	343.7	60.2	1063	18.70	64.8	710-19.66	82.3	3.9	13.7	
160.0	4.6	OUT	344.0	55.7	1063	18.70	66.8	710-19.66	69.8	3.1	-0.1	
170.0	0.1	IN	343.7	60.2	1063	18.70	64.8	664-20.49	81.5	3.9	12.8	
170.0	4.3	OUT	343.2	56.0	1063	18.70	66.7	664-20.49	69.5	3.1	-0.2	
180.0	0.1	IN	343.7	60.2	1063	18.70	64.7	670-20.84	81.2	3.9	12.5	
180.0	4.2	OUT	342.5	56.3	1063	18.70	66.5	670-20.84	69.6	3.2	-0.1	
190.0	0.1	IN	343.7	60.2	1063	18.70	64.7	696-20.49	81.5	3.9	12.8	
190.0	4.4	OUT	341.7	56.4	1064	18.70	66.5	696-20.49	69.5	3.2	-0.2	
200.0	0.1	IN	343.7	60.2	1063	18.70	64.7	690-19.66	82.3	3.9	13.7	
200.0	4.7	OUT	340.9	56.6	1064	18.70	66.4	690-19.66	69.3	3.2	-0.3	
210.0	0.1	IN	343.7	60.2	1063	18.70	64.7	682-18.46	83.5	3.9	14.9	
210.0	5.1	OUT	340.0	56.9	1065	18.70	66.3	682-18.46	69.3	3.3	-0.2	
220.0	0.1	IN	343.7	60.2	1063	18.70	64.7	604-17.04	85.0	3.9	16.3	
220.0	5.4	OUT	339.3	57.5	1065	18.70	66.0	604-17.04	69.1	3.4	-0.2	
230.0	0.1	IN	343.6	60.3	1063	18.70	64.7	632-15.67	86.3	3.9	17.7	
230.0	6.0	OUT	338.3	58.2	1065	18.70	65.7	632-15.67	69.1	3.5	-0.1	
240.0	0.1	IN	343.6	60.3	1063	18.70	64.7	842-14.76	87.2	3.9	18.6	
240.0	7.4	OUT	336.8	59.0	1067	18.70	65.3	842-14.76	68.9	3.7	-0.1	
250.0	0.1	IN	343.6	60.3	1063	18.70	64.7	900-14.18	87.8	3.9	19.2	
250.0	8.1	OUT	336.1	60.4	1069	18.70	64.7	900-14.18	68.7	3.9	-0.0	
260.0	0.1	IN	343.6	60.3	1063	18.70	64.7	902-13.89	88.1	3.9	19.5	
260.0	8.5	OUT	335.9	61.8	1069	18.70	64.1	902-13.89	68.2	4.2	-0.1	

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CONSULTING TELECOMMUNICATIONS ENGINEERS

FALLS CHURCH, VA 22041

Capital Cities/ABC, Inc. - Station WPVI-TV
Philadelphia, Pennsylvania

Table 1 (Cont'd)

I N T E R F E R E N C E C A L C U L A T I O N S

Interference			----- TV -----					----- FM -----				
At								Effective			Allowed	
Az	Dist		Az	Dist	Haat	ERP	Field	Haat	ERP	Field	U/D	U/D
270.0	0.1	IN	343.6	60.3	1063	18.70	64.7	898	-13.87	88.1	3.9	19.5
270.0	8.7	OUT	336.2	63.3	1069	18.70	63.4	898	-13.87	67.9	4.6	-0.2
280.0	0.1	IN	343.7	60.3	1063	18.70	64.7	886	-8.01	94.0	3.9	25.4
280.0	12.6	OUT	334.0	66.9	1074	18.70	61.9	886	-8.01	67.4	5.5	-0.1
290.0	0.1	IN	343.7	60.4	1063	18.70	64.7	886	-8.30	93.7	3.9	25.1
290.0	12.6	OUT	335.2	68.5	1071	18.70	61.2	886	-8.30	67.1	6.0	-0.1
300.0	0.1	IN	343.7	60.4	1063	18.70	64.7	918	-8.59	93.4	3.9	24.8
300.0	12.7	OUT	336.6	70.0	1068	18.70	60.5	918	-8.59	67.0	6.5	-0.0
310.0	0.1	IN	343.7	60.4	1063	18.70	64.7	896	-8.74	93.3	4.0	24.6
310.0	12.5	OUT	338.2	71.0	1065	18.70	60.1	896	-8.74	66.9	6.9	-0.0
320.0	0.1	IN	343.7	60.4	1063	18.70	64.7	940	-8.74	93.3	4.0	24.6
320.0	12.9	OUT	339.6	72.3	1065	18.70	59.5	940	-8.74	66.8	7.3	-0.0
330.0	0.1	IN	343.7	60.4	1063	18.70	64.7	944	-8.55	93.5	4.0	24.8
330.0	13.2	OUT	341.3	73.2	1064	18.70	59.1	944	-8.55	66.6	7.6	-0.1
340.0	0.1	IN	343.7	60.4	1063	18.70	64.7	980	-8.21	93.8	4.0	25.2
340.0	13.7	OUT	343.1	74.0	1063	18.70	58.8	980	-8.21	66.6	7.9	-0.0
350.0	0.1	IN	343.7	60.4	1063	18.70	64.7	948	-7.94	94.1	4.0	25.4
350.0	13.7	OUT	344.9	73.9	1063	18.70	58.8	948	-7.94	66.6	7.8	-0.1

MOFFET, LARSON & JOHNSON, INC.

5203 LEESBURG PIKE

CONSULTING TELECOMMUNICATIONS ENGINEERS

FALLS CHURCH, VA 22041

Capital Cities/ABC, Inc. - Station WPVI-TV
Philadelphia, Pennsylvania

Table 2
Population Count Detail

Study # : 1

Market : Allentown, Pennsylvania

Run By : JCK

Definition : 2

Study Group : All Persons

----Location---			-----Population-----		
Sta	Cty	Sub Plc	Total	%	Incl.
---	---	---	---	---	---
Total Study					273,718
Pennsylvania			11,881,643	2	273,718
Lehigh County			291,130	72	208,708
	Allentown city		105,090	100	105,090
	Bethlehem city		18,867	100	18,867
	Catasauqua borough		6,662	100	6,662
	Coplay borough		3,267	100	3,267
	Emmaus borough		11,157	77	8,609
	Emmaus borough		11,157	77	8,609
	Fountain Hill borough		4,637	100	4,637
	Hanover township		2,243	100	2,243
	Lower Macungie township		16,871	20	3,350
	Remainder of Lower Macungie township		14,208	24	3,350
	Salisbury township		13,401	100	13,401
	South Whitehall township		18,261	92	16,832
	South Whitehall township		18,261	92	16,832
	Upper Milford township		6,304	2	135
	Upper Milford township		6,304	2	135
	Upper Saucon township		9,775	69	6,772

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Philadelphia, Pennsylvania

Table 2 (Cont'd) - Population Count Detail

Northampton County	247,105	26	65,010
Bethlehem city	52,561	86	45,338
Bethlehem city	52,561	86	45,338
Freemansburg borough	1,946	100	1,946
Hanover township	7,176	100	7,168
Hanover township	7,176	100	7,168
Lower Saucon township	8,448	43	3,651
Lower Saucon township	8,448	43	3,651
Northampton borough	8,717	46	4,040
Northampton borough	8,717	46	4,040
North Catasauqua borough	2,867	100	2,867

End of study

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Philadelphia, Pennsylvania

Table 2 (Cont'd) - Population Count Summary

Market : Allentown, Pennsylvania

Run By : JCK

Study Area : 40 42 N 75 36 W 40 31 S 75 19 E

Study	Households	All
1	112,919	273,718*

* - Detail report included.

Study Name	Definition
1 TV6 interf. to WPVI-TV from Allentown 2	

Contour Cell Sector ID :

2	Location	: 40 33 54.0 N 75 26 26.0 W
	Study Name	: TV6 intf, Beacon Bdc

Bear	Dist (kilometers)
0.00	13.40
10.00	13.30
20.00	13.20
30.00	12.70
40.00	12.40
50.00	12.00
60.00	7.80
70.00	8.00
80.00	7.70
90.00	7.80
100.00	7.70
110.00	6.90
120.00	6.50
130.00	6.20
140.00	5.70
150.00	5.10
160.00	4.60
170.00	4.30
180.00	4.20
190.00	4.40
200.00	4.70
210.00	5.10
220.00	5.40
230.00	6.00
240.00	7.40
250.00	8.10
260.00	8.50

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Philadelphia, Pennsylvania

Table 2 (Cont'd) - Population Count Summary

Bear	Dist (kilometers)
-----	-----
270.00	8.70
280.00	12.60
290.00	12.60
300.00	12.70
310.00	12.50
320.00	12.90
330.00	13.20
340.00	13.70
350.00	13.70

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Philadelphia, Pennsylvania

A F F I D A V I T

COUNTY OF FAIRFAX)
) SS:
COMMONWEALTH OF VIRGINIA)

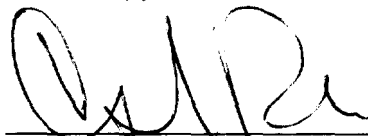
CHARLES G. PERRY III, being duly sworn upon oath deposes and says:

That he has a Bachelor's degree in Electrical Engineering from the University of Tennessee and that he is a registered professional engineer in the State of Virginia;

That he is corporate vice-president of the firm of Moffet, Larson & Johnson, Inc., consulting telecommunications engineers;

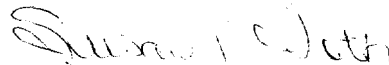
That this firm has been retained by Capital Cities/ABC, Inc., to prepare this engineering statement;

That he has either prepared or directly supervised the preparation of all technical information contained in this engineering statement; and that the facts stated in this engineering statement are true of his knowledge, except as to such statements as are herein stated to be on information and belief, and as to such statements he believes them to be true.

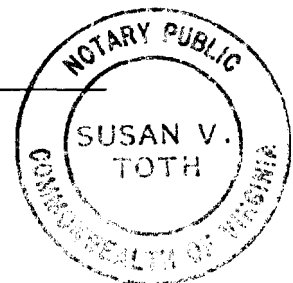


Charles G. Perry, III

Subscribed and sworn to before me this 27th day of May, 1992.



Notary Public



My Commission expires July 31, 1996.

My Comm. Exps.
July 31, 1996

MOFFET, LARSON & JOHNSON, INC.

5203 LEESBURG PIKE

CONSULTING TELECOMMUNICATIONS ENGINEERS

FALLS CHURCH, VA 22041

Capital Cities/ABC, Inc. - Station WPVI-TV
Philadelphia, Pennsylvania

A F F I D A V I T

COUNTY OF FAIRFAX)
) SS:
COMMONWEALTH OF VIRGINIA)

JOHN C. KEAN, being duly sworn upon oath deposes and says:

That he is employed as a staff engineer by the firm of Moffet, Larson & Johnson, Inc., consulting telecommunications engineers;

That this firm has been retained by Capital Cities/ABC, Inc. to prepare this engineering statement;

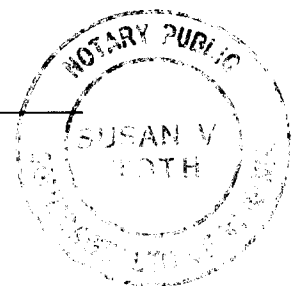
That he has either prepared or directly supervised the preparation of all technical information contained in this engineering statement; and that the facts stated in this engineering statement are true of his knowledge, except as to such statements as are herein stated to be on information and belief, and as to such statements he believes them to be true.

John C. Kean
John C. Kean

Subscribed and sworn to before me this 27th day of May, 1992.

Susan V. Roth
Notary Public

My Commission expires July 31, 1996.



My Comm. Exps.
July 31, 1996